antigen in urine, which shows a sensitivity of 68–100% and specificity of 100% in beginning trials.
Conclusion: Our research is centralized to develop a detection method either from isolated specific antigen or from serum or any other fluid / tissues taken from kala-azar patients, which is easy to carry out and efficient for the diagnosis of visceral leishmaniais in field as well as in laboratory condition where lack of sophisticated instruments and expertise persons.

PP-053 Glypican-3 amino terminal marker for early detection of HCC

H. Abd El Moety[1]*, A.M.R. Abd El Moety[2], Y. Roustom[3], M. Elsawy[4]. [1]*Chemical Pathology, Medical Research Institute, Alexandria University,* [2]*Internal Medicine, Faculty of Medicine, Alexandria University,* [3]*Radiology, Faculty of Medicine,* [4]*Clinical Pathology, Alexandria University, Egypt*

Introduction: HCC is the 6th common cancer. Global increase of hepatitis B and C infection, the incidence of HCC has been steadily increasing. Egypt seroprevalence of HCV in Nile delta was 20–35%. AFP had limited sensitivity 60% and specificity 90% for small HCC. GPC-3 oncofetal protein over expressed in HCC.
Aim: Evaluating the validity of Glypican-3 as an early detector of HCC.
Material: 10 healthy controls and 40 HCV positive patients: 10 patients with chronic hepatitis C virus infection, 10 patients with compensated cirrhosis [Child–Pugh class A and B], 10 patients with decompensated cirrhosis [Child–Pugh class C], 10 patients with HCC.
Methods: Liver functions: ALT, AST, Bilirubin (T), Albumin, γGT. Tumor markers: AFP and GPC-3.Viral markers: HCV antibodies, HBs Ag and HBc Ab.
Results: The median value of GPC-3 in HCC, DC, CC was significantly higher than chronic hepatitis and control groups. No significant correlation found between AFP and GPC-3. AUROC of AFP was 0.85 & AUROC of GPC-3 was 0.84. The diagnostic sensitivity of AFP (20 ng/ml) was 70% with PPV 53.8%. The specificity was 85% with NPV 91.9%. While the diagnostic Sensitivity of GPC-3 (2 ng/ml) was 100% with PPV 27%. The specificity was 42.2% with NPV 100%. Combined serial approach of AFP and GPC-3 improved the specificity to 87.5%.
Conclusion: GPC-3 although it is a serological test for early detection of HCC, it showed limited specificity, where It is detected in different stages of chronic liver disease, as it is an oncofetal protein produced by regenerating liver cells. The diagnostic signature approach for simultaneous determination of AFP and GPC-3 may improve the prediction accuracy of HCC patients in those showing seronegativity to AFP.

PP-054 Study of portal and systemic levels of nitric oxide, endothelin-1 and procollagen III peptide in chronic liver disease in Egypt

H. Abd El Moety[1]*, M. Kandil[1], G. Magour[1], J. Fadaly[2], M. Abd El Baky[3], M. El Gendy[4]. [1]*Chemical Pathology, Medical Research Institute, Alexandria University,* [2]*Pathology, Medical Research Institute,* [3]*Surgery, Medical Research Institute,* [4]*Surgery, Faculty of Medicine, Egypt*

Egypt has one of the highest incidence of liver diseases in the world with prevalence of schistosomiasis. NO diffuses into cytosol of adjacent vascular smooth muscle cells play a role in the pathogenesis of vasodilation. Endothelial cells also produce the most potent vasoconstrictor agent endothelin (ET-1).
Aim: Evaluation of nitric oxide and endothelin-1 and procollagen III peptide in patients with chronic liver disease and portal hypertension in both systemic and portal blood samples together with the histopathological scoring of liver biopsies.
Subjects: The control group 15 subjects free from any liver disease. The patient group 30 patients with chronic liver disease and schistosomal portal hypertension.
Methods: Clinical examination, abdominal ultrasonography, measurement of portal venous pressure and histopathological examination of liver biopsy. Laboratory investigations included evaluation of total nitric oxide (NO), endothelin-1 (Et-1) and type III procollagen (PIIINP) in both portal and systemic blood. In addition prothrombin, serum alanine, aspartate aminotransferase (AST, ALT), γ glutamyl aminotransferase (γGT) activities, serum bilirubin, albumin, serodetection of hepatitis B surface antigen (HBsAg) and hepatitis B core antibody and (anti-HCVAb).
Results:
- NO and ET-1 levels in both systemic and portal blood of SHF patients were significantly higher than in the control group.
- NO is a potent vasodilator.
- ET-1 increase may be a compensatory mechanism to antagonize the vasodilatory effect of NO.
- Child class B subgroup had higher NO and ET-1 than class A.
- NO and ET-1 levels did not differ between anti HCV positive and negative SHF patients.

PP-055 Development and application of a real-time TaqMan PCR for detection of the spotted fever group of rickettsia

C.W. Liang[1]*, L.J. Zhang[1], J.B. Zhao[2], J. Li[3], L.T. Chang[3], L.X. Zhang[1], H.L. Yu[1], J.G. Xu[1]. [1]*National Institute of Communicable Disease Control and Prevention, Chinese Center for Disease Control and Prevention, Beijing 102206, China,* [2]*School of Public health, Harbin Medical University, Harbin 150080, China,* [3]*Yunnan Provincial Center for Disease Control and Prevention, Kunming 650022, China*

Objectives: Three species or subspecies of spotted fever group rickettsiae (SFRG) were documented in China. Recently, we detected a novel serotyping SFRG which was broadly prevalence in China. However, the greatest challenge in preventing and controlling rickettsiosis in China is laboratory diagnosis. Few clinical laboratories have the laboratory diagnostic ability for rickettisae and even some better equipped laboratories also used old Weil Felix. In order to solve this problem, our national laboratory for rickettsiosis surveillance has developed a Taqman real-time PCR assay based on the SFGR *ompA* gene that was devised for rapid detection of SFRG.
Methods: The primers and probes for the real-time PCR were designed based on the conserved sequences of the *ompA* gene through alignment from 14 SFGR species. Two hundred and sixty five blood samples (127 goats, 78 dogs, 60 cattle) collected from Yunnan Provinces were tested using the developed PCR to investigate the infection rate and the distribution among these animals.
Results: The developed assay amplified most of the SFGR strains: *R. sibirica, R. conorii, R. marmionii, R. rickettsii, R. africa, R. parkeri, R. canada, R. heilongjiangensis* but not *R. akari* and *R. felisi*. Genomic DNA from other members of the order Rickettsiales showed negative results. The mean (range) CV values for intra-assay and interassay variation were 1.15% and 2.59% respectively. The limits of detection (LOD) was 200 copies per reaction. Of the 265 animal blood samples, 56 (21.13%) tested positive. The prevalence among